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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,571	04/16/2004	Masamichi Fujiwara	P/3241-26 DI	1751
7590	09/16/2005		EXAMINER	
OSTROLENK, FABER, GERB & SOFFEN, LLP 1180 Avenue of the Americas New York, NY 10036-8403			LEE, JOHN D	
			ART UNIT	PAPER NUMBER
			2874	
DATE MAILED: 09/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/826,571

**Applicant(s)**

FUJIWARA ET AL.

**Examiner**

John D. Lee

**Art Unit**

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 50-75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/900,613.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0404</u> . | 6) <input type="checkbox"/> Other: ____  |

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. §§ 119(a)-(d). The certified copy has been filed in parent Application No. 09/900,613, filed on July 6, 2001.

The seventy-four (74) sheets of drawing filed with this application on April 16, 2004, are acceptable.

The disclosure is objected to because of the following minor informalities: on page 1 the Patent Numbers of the referenced U.S. applications should be inserted at the appropriate places. Appropriate correction is required. Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 50-75 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 50 and 60 are indefinite and difficult to understand because (1) they each utilize the same identifier  $\Delta f$  for both the mode spacing of a discrete spectrum and a repetition frequency of a CW light source (which makes succeeding references to  $\Delta f$  difficult to follow), and (2) the claims are drafted with cascaded alternative phrases (...."or"...."or"...."or"....) which makes the intended metes and bounds of the claimed subject matter difficult to ascertain. These two independent claims, along with all claims which depend therefrom, are thus indefinite. In addition, it is believed that claim 57 should depend from claim 56 rather

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than from claim 54, because of the reference to the regulation of the frequency shift of the discrete spectrum. In claims 57 and 70, line 4 of each, it is believed that “to varying” should be “by varying”. In claims 58, 72, and 73, the specific reference to “by causing the phase modulator to shift....” makes the claim indefinite, because the preceding claims in the chain of dependency alternatively recite a phase or amplitude modulator (not specific to a phase modulator). It is suggested that these three claims be amended to specify a phase modulator prior to the phrase “by causing the phase modulator to shift....”. Claims 59, 74, and 75 are further indefinite because of the specific reference to “said continuous wave (CW) output from said single-wavelength light source”. Note that the cascaded “or”s in independent claim 50 make the continuous wave (CW) output from the single-wavelength light source only one of three possibilities for obtaining the discrete spectrum. It is suggested that these three claims specify the particular use of the continuous wave (CW) output from the single-wavelength light source prior to the phrase “said continuous wave (CW) output from said single-wavelength light source”. It is believed that claim 70 should depend from claim 69 rather than from claim 65, because of the reference to the regulation of the frequency shift of the discrete spectrum. The intended further limitations of claim 71 are unclear because this claim is word-for-word identical to claim 70.

Although it is difficult, in view of the indefiniteness described above, to understand the precise invention being claimed, the Examiner has attempted to examine the claims with respect to prior art. It appears that the claimed subject matter is patentably distinct over the most relevant prior art, as applicant’s method (and

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apparatus) for flattening an optical spectrum using two steps of modulation as described in the claims is not disclosed or suggested by the prior art. Therefore, claims 50-75 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 112, 2nd paragraph, set forth above in this Office action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The U.S. Patents to Esaki et al, Buchman et al, Okazaki et al, and Galvanauskas et al were discussed during the prosecution of the parent application, and are relevant for the reasons developed therein. These references do not disclose or suggest applicant's stated method of flattening an optical spectrum. The U.S. Patent to Fujiwara et al (6,924,924) has matured from applicant's parent application Serial Number 10/655,675, filed September 4, 2003. U.S. Patent 6,496,634 to Levenson describes flattening an optical spectrum by frequency modulating a pump wavelength (see Figures 25-27 and corresponding disclosure).

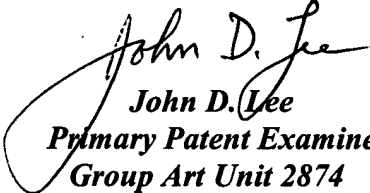
All of the prior art documents submitted in the Information Disclosure Statement filed on April 16, 2004, have been considered and made of record. Note the attached initialed copy of form PTO-1449. These documents were discussed during the prosecution of the parent application, and are relevant for the reasons developed therein.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. §§ 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.

  
**John D. Lee**  
**Primary Patent Examiner**  
**Group Art Unit 2874**